The User Manual of Course\_schedule program

All the requirements for the course schedule are input as an excel file:

This excel file contains 8 sheets, which are “main”, “time\_slots”, “rooms”, “fix\_rooms”, “instructors”, “area”, “room\_size”, “conflict\_notes”.

1. “main” sheet

The first 5 columns (class\_ID, course\_ID, department, days, stuNUM) are mandatory, they can’t be left empty. stuNUM stands for the number of students in the corresponding classes.

The instructor\_ID in the 6th column is flexible. If the corresponding class/course’s instructor is determined, then these determined instructors’ information should be added to the sheet “instructors”, and the ids of the instructors stored in the “instructors” sheet are input to the column of instructor\_ID in the “main” sheet corresponds to the right class. If the instructor\_ID is left empty, then the instructor of corresponding class/course is considered not determined yet, and the program would automatic generate a virtual instructor for the course.

The preference\_time in column G is flexible. If it is left empty, then this course and the corresponding instructor is considered to have no preference time. Otherwise, the preference time is a sequence of indexes of time\_slots coded in the manner specified in the “time\_slots” sheet.

The fix\_room in column H indicates whether the corresponding course’s class room is fixed. If this column is left empty, it means that the class room is not fixed. Otherwise, this column should be the id the corresponding room.

The fix\_time in column I indicates whether the corresponding course’s time is fixed. If this column is left empty, it means that the time is not fixed. Otherwise, this column should be the code of the corresponding time\_slots specified in sheet “time\_slots”.

The column au and sp indicate whether the course is opened in which semester.

The # of sessions in column L is indicating:

The duration minutes in column M specifies the duration of the course. Current this column is not used.

1. “time\_slots”

This sheet specifies the time\_slots of regular courses in MWF, TR and lab courses.

The idx column stores the code of the corresponding time\_slot on the left side. These codes of time\_slots are used to specify the preference\_time of instructors in the “main” sheet.

1. “rooms”

This sheet specifies the room resource that is available for course schedule.

e.g.:

|  |  |
| --- | --- |
| numOfSmallRooms | 20 |
| numOfMediumRooms | 30 |
| numOfLargeRooms | 10 |
| numOfXLargeRooms | 10 |

1. “fix\_rooms”

This sheet specifies the room name, room size and the corresponding id of the fixed rooms in “main” sheet.

1. “instructors”

This sheet stores an instructor table to store the name the of instructor and her id.

1. “area”

This is a note which explains the study area of which the 3rd digit of the course # represents

1. “room\_size”

This sheet specifies the type of rooms by its capacity.

1. “conflict\_notes”

This is the scheduling conflicts that needs to be avoid